

**APPARATUS AND METHOD FOR COMMUNICATING ARBITRARILY  
ENCODED DATA OVER A 1-GIGABIT ETHERNET**

**ABSTRACT OF THE DISCLOSURE**

The invention allows data originating according to a first communications standard to be transmitted over a physical layer using a second communications standard. According to an embodiment of the invention, a data stream is received from a physical transmission medium that uses particular first communications standard. Next, a data type identification (DTID) is appended to each byte in the data stream, thereby creating a technology independent data stream having a particular bit rate. This bit rate is then matched to a different bit rate that corresponds to a second communications standard. The technology independent data stream is then transmitted over a physical transmission medium that uses the second communications standard.